

CLAIMS

1. A method for detecting hepatocellular carcinoma comprising the steps of:

5 (a) measuring, in a tested tissue, the expression level(s) of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene; and

 (b) comparing the expression level(s) of the gene(s)
10 measured in (a) with the expression levels of the genes in a control that correspond to the genes measured in step (a).

2. A method for detecting hepatocellular carcinoma comprising the steps of:

15 (a) measuring, in a tested tissue, the expression level(s) of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene, and at least one gene selected from the group consisting of aldolase B gene, carbamyl phosphate
20 synthase 1 gene, albumin gene and cytochrome P450 subfamily 2E1 gene; and

 (b) comparing the expression levels of genes measured in (a) with the expression levels of genes in a control that correspond to the genes measured in (a).

3. A method for detecting hepatocellular carcinoma according to any one of Claims 1 or 2, wherein the step (a) of measuring the expression level(s) of the gene(s) is performed by determining the amount of transcripts of the genes being measured.

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4. A method for detecting hepatocellular carcinoma according to any one of Claims 1 or 2, wherein the step (a) of measuring the expression level(s) of the gene(s) is performed by amplifying whole or a part of the DNA to be measured and using cDNA prepared from gene transcripts as a template.

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5. A method for detecting hepatocellular carcinoma according to any one of Claims 1 to 3, wherein the step (a) of measuring the expression level(s) of the gene(s) is performed by invader assay.

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6. A method for detecting hepatocellular carcinoma according to any one of Claims 1 to 2, wherein the step (a) of measuring the expression level(s) of the gene(s) is performed by hybridizing labeled cDNA prepared from transcripts including the gene(s) to be measured with whole or a part of the immobilized DNA of the gene(s) to be measured.

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7. A method for detecting hepatocellular carcinoma according to any one of Claims 1 to 6, wherein the tested tissue

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in the step (a) is liver tissue of a chronic hepatitis patient.

8. A method for detecting hepatocellular carcinoma at an early stage that comprises the step of periodically measuring
5 the expression level(s), in a tested tissue, of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene.

10 9. A method for detecting hepatocellular carcinoma at an early stage that comprises the step of periodically measuring the expression level(s), in a tested tissue, of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene,
15 and at least one gene selected from the group consisting of aldolase B gene, carbamyl phosphate synthase 1 gene, albumin gene and cytochrome P450 subfamily 2E1 gene.

20 10. A DNA chip for detecting hepatocellular carcinoma in which whole or a part of DNA comprising transcribed region(s) of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene is immobilized.

25 11. A DNA chip for detecting hepatocellular carcinoma

in which whole or a part of DNA, in a tested tissue, comprising transcribed region(s) of at least one gene selected from the group consisting of plasminogen gene, EST51549, retinol-binding protein 4 gene and organic anion transporter C gene, and, at least one gene
5 selected from the group consisting of aldolase B gene, carbamyl phosphate synthase 1 gene, albumin gene and cytochrome P450 subfamily 2E1 gene.